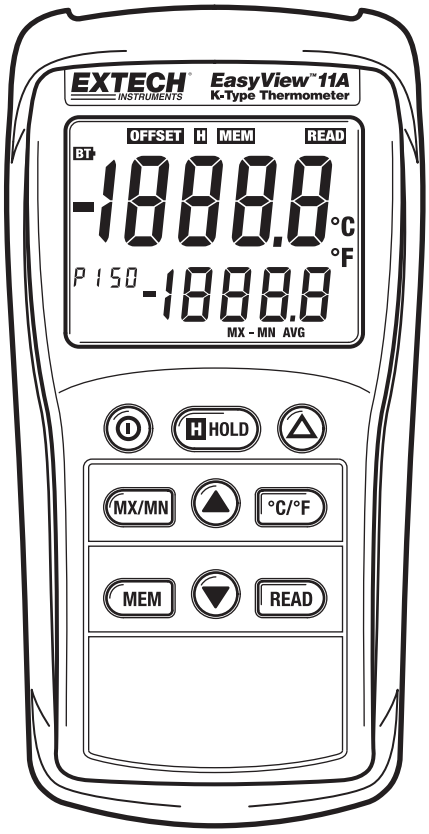
User's Guide

EXTECH INSTRUMENTS

EasyView™ K-Type Thermometer

Model EA11A



Introduction

Congratulations on your purchase of the Extech EasyView™ Thermometer. This device offers a single K-type thermocouple input with multifunction LCD display. This meter is shipped fully tested and calibrated and, with proper use, will provide years of reliable service.

Safety

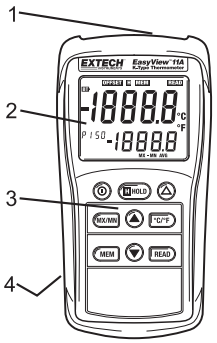
To prevent personal injury or meter damage, use the meter only as specified in this guide

WARNING
To avoid electrical shock or personal injury, do not apply more than 20Vrms between the thermocouple inputs or between the thermocouple and earth ground

Meter Description

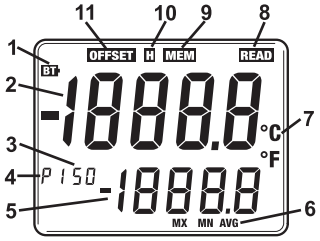
Meter

1. Thermocouple input connector
2. LCD display
3. Function buttons
4. Battery compartment (rear)



Display

1. Low battery
2. Primary display
3. Memory location
4. Auto power off
5. Secondary display
6. Max, Min and Average
7. Temperature units
8. Read from memory location
9. Store to memory location
10. Hold
11. Offset



Operation

Connecting thermocouples

1. This meter accepts any K-type thermocouple with spade plugs (sub-miniature type with one spade wider than the other).
2. Plug the thermocouple into the meter's thermocouple input jack.

Measuring

1. Press the ⏻ button to turn power on. The meter will perform a short self-test.
2. Press the **°C/°F** button to select the desired temperature unit of measure. A display icon will reflect the selection.
3. If a probe is not connected to the meter, the "--------" indication will appear on the display.
4. Contact the object to be measured with the probe.
5. Read the measured temperature in the display.

Note: If the display indicates "OL" the temperature is outside the measurement range.

Maximum, Minimum and Average Function

1. Press the **MX/MN** button to capture the Maximum (MX), Minimum (MN) and Average (AVG) temperature values.
2. The lower secondary display will appear with MX and the maximum recorded temperature displayed. The upper display will continue to measure the current temperature. The lower display will update only when a new higher temperature is measured.
3. Press the **MX/MN** button to step through MX, MN and AVG.
4. The AVG value is the true average of the measured values. Averaging will occur for 4 hours, then the average will reset and begin a new 4 hour cycle.
5. To exit the MX/MN function, Press and Hold the MX/MN button until the display returns to standard operation.

Note: The Auto Power Off feature is disabled when the MX/MN feature is selected.

Data Hold

Press the **HOLD** button to freeze the reading in the display. The 'H' icon will appear on the top center of the display. Press the HOLD button again to return to normal operation (the 'H' icon will disappear).

☚ Offset

1. Press the ☚ Offset (relative) button to zero the displayed reading and to use that reading as a reference for all future readings.
2. The OFFSET icon will appear in the display.
3. The stored reference value will appear in the lower secondary LCD display.
4. To exit the ☚ Offset function, Press and Hold the ☚ button until the display returns to standard operation.

Memory

The meter memory allows for the storage and recall of up to 150 temperature measurements.

1. Press the MEM button to store the reading into memory. “MEM” will briefly appear on the display and the memory location will be indicated on the display.
2. Press the READ button to recall the data from the indicated memory location
   a. “READ” and the stored value will appear in the display
   b. Press the ▲ ▼ buttons to step through the memory locations.
   c. To exit the READ function, Press the READ button.
3. To clear data in memory
   a. Turn the meter OFF
   b. Press and Hold the MEM button and press the ⏻ power button.
   c. Release the MEM button and ALL CLr and NO will appear in the display.
   d. Press the ▼ button to select YES (delete data in memory) or NO (escape without deleting).
   e. Press the MEM button to implement the choice and exit the function.

Auto Power Off

To conserve battery life, the meter will go into the sleep mode if no button is pressed for 30 minutes. “P” is displayed on the LCD when this feature is enabled.

To disable the feature:

1. With the meter OFF, Press and Hold the HOLD button and press the ⏻ power button.
2. P and OFF will briefly appear on the display indicating that the auto power off feature is disabled.
3. “P” will not be displayed.

Note: Auto power off is enabled every time the meter is powered on and is automatically disabled when the MX/MN feature is enabled.

Battery Replacement

When the “BT” low battery icon appears in the display measurement accuracy may be affected. Replace the 6 AAA batteries by removing the rear screw and battery compartment cover.

Cleaning

Periodically wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents. Wipe dry as necessary. Replace

Specifications

General Specifications

Display	Multi-function LCD
Measurement Range	-58 to 1999°F (-50 to 1300°C)
Resolution	0.1°C/°F <200° , 1°C/°F ≥200°
Data Memory	150 sets
Input Protection	20V maximum
Display Update Rate	2.5 times per second
Over range indication	"OL" appears on the LCD
Open input indication	"-------" appears on the LCD
Auto Power OFF	30 minutes (if no key is pressed)
Low battery indication	"BT" appears on the LCD
Power supply	6 AAA Batteries
Battery life	Approximately 110 hours with carbon zinc batteries
Operating Temperature	32 to 122°F (0 to 50°C)
Operating Humidity	< 80% RH
Storage Temperature	14 to 140°F (-10 to 60°C)
Storage Humidity	< 70% RH
Altitude	up to 2000 meters
Approvals	CE
Dimensions	5.91x2.8x1.4" (150x72x35mm)
Weight	Approx. 8.29 oz. (235g) with battery

Accuracy Specifications

Units	Range	Accuracy (@23 ± 5°C)
°F	0°F to 1832°F	±(0.3% reading + 2°F)
	-58°F to 0°F and 1832°F to 1999°F	±(0.5% reading + 2°F)
°C	0°C to 1000°C	±(0.3% reading + 1°C)
	-50°C to 0°C and 1000°C to 1300°C	±(0.5% reading + 1°C)
Temperature Coefficient	0.1 times the applicable accuracy specifications per °C from 0°C to 18°C and 28°C to 40°C (32°F to 64°F and 82°F to 104°F)	
Note: Temperature accuracy does not include the accuracy of the type K probe.		
Note: The temperature scale is based on the international temperature scale of 1990 (ITS90).		

Warranty

EXTECH INSTRUMENTS CORPORATION warrants this instrument to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies on sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website at www.extech.com for contact information. A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

Calibration and Repair Services

Extech offers repair and calibration services for the products we sell. Extech also provides NIST certification for most products. Call the Customer Care Department for information on calibration services available for this product. Extech recommends that annual calibrations be performed to verify meter performance and accuracy.

Support line (781) 890-7440

Technical Support: Extension 200; E-mail: support@extech.com

Repair & Returns: Extension 210; E-mail: repair@extech.com

Product specifications subject to change without notice

For the latest version of this User Guide, Software updates, and other up-to-the-minute product information, visit our website: www.extech.com

Extech Instruments Corporation, 285 Bear Hill Road, Waltham, MA 02451

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